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### AMENDMENTS TO THE CLAIMS

A complete listing of all claims in the application is provided below with the requested amendments marked.

1. (currently amended) A dew-point cooler, comprising:  
a first medium circuit and a second medium circuit, thermally coupled to the first medium circuit by a partition that is at least partially heat conducting, the circuits being able to carry respective first and second media, at least the second medium containing air with a relative humidity of less than 100 %;  
the partition having heat conducting surfaces which in at least the range of the secondary medium are at least partially coated with a hydrophilic coating, said coating being able to absorb and retain water and release the water by evaporation, such that the wetted coating and therefore also the heat conducting surfaces are cooled;  
primary driving apparatus for the primary medium;  
a humidification unit for humidifying the secondary medium by evaporation of water from the coating, such that the evaporated water which is carried away by the secondary medium extracts heat from the primary medium via the heat conducting partition;  
wherein a water system, comprising the humidification unit and the coating, contains an amount of inorganic anti-microbial catalyst and at least one ultraviolet source is provided for irradiating the inorganic anti-microbial catalyst  
an amount of water;  
an inorganic anti-microbial catalyst in contact with the water;  
a source of ultraviolet radiation capable of irradiating the catalyst.
2. (previously presented) The dew-point cooler according to claim 1 wherein the catalyst is titanium dioxide.
3. (previously presented) The dew-point cooler according to claim 1 wherein the source of ultraviolet radiation is natural sunlight.
4. (cancelled)

5. (cancelled)

6. (currently amended) Dew-point cooler according to claim 51, wherein the humidification unit further comprises a container for receiving the surplus non-evaporated water, the container being provided with piping to supply water from the container to the coating, as well as supply piping for supplying supplemental water.

7. (original) Dew-point cooler according to claim 6, wherein at least a part of the amount of titanium dioxide is situated in the container.

8. (original) Dew-point cooler according to claim 7, wherein the container has an interior surface, the titanium dioxide being provided on the interior surface.

9. (currently amended) Dew-point cooler according to claim 51, wherein the coating comprises a porous copolymer, a technical ceramic material, a cement such as a Portland cement, or a fibrous material, and wherein titanium dioxide is added to the coating or wherein the coating essentially consists of titanium dioxide.

10. (original) Dew-point cooler according to claim 9, wherein the coating consists entirely of titanium dioxide.

11. (currently amended) Dew-point cooler according to claim 51, wherein the water system further comprises a water distribution tray for distributing water to the coating and wherein an amount of titanium dioxide is provided in the water distribution tray.

12. (previously presented) The dew-point cooler according to claim 2 wherein the source of ultraviolet radiation is natural sunlight.